ABSTRACT OF THE DISCLOSURE

A system used to detect and annunciate a loss of occupancy detection in transit systems normally operating under automatic train control operation is disclosed. The preferred embodiment comprised of a speed command and control data decoder; a controller; a global positing system transceiver, a radio frequency transceiver; an optical transceiver; a hard wired train line transceiver and a traction power transceiver. Upon manual, or automatic, engagement of operation the system, in collaboration with the existing automatic train operations electronics and computer software detects and annunciates the loss of occupancy detection by querying the trains trailing blocks for any valid nonzero speed command. Most transit systems using automatic train control and receiving speed commands from running rail or catenaries have no means to know if the existing entire Automatic Train Control (ATC) occupancy detection system is working properly until an accident occurs. As such, these systems may have occupancy detection failures unknown until a specific set of sequences is experienced. In the present invention, the system's self checking error and failure detection operation is automatically checked during normal running mode of operation and as such each individual component of the entire automatic train operation is checked for failure in its entirety and the system is void of undetected latent failures owing to its design, stability, and simplicity of operation.